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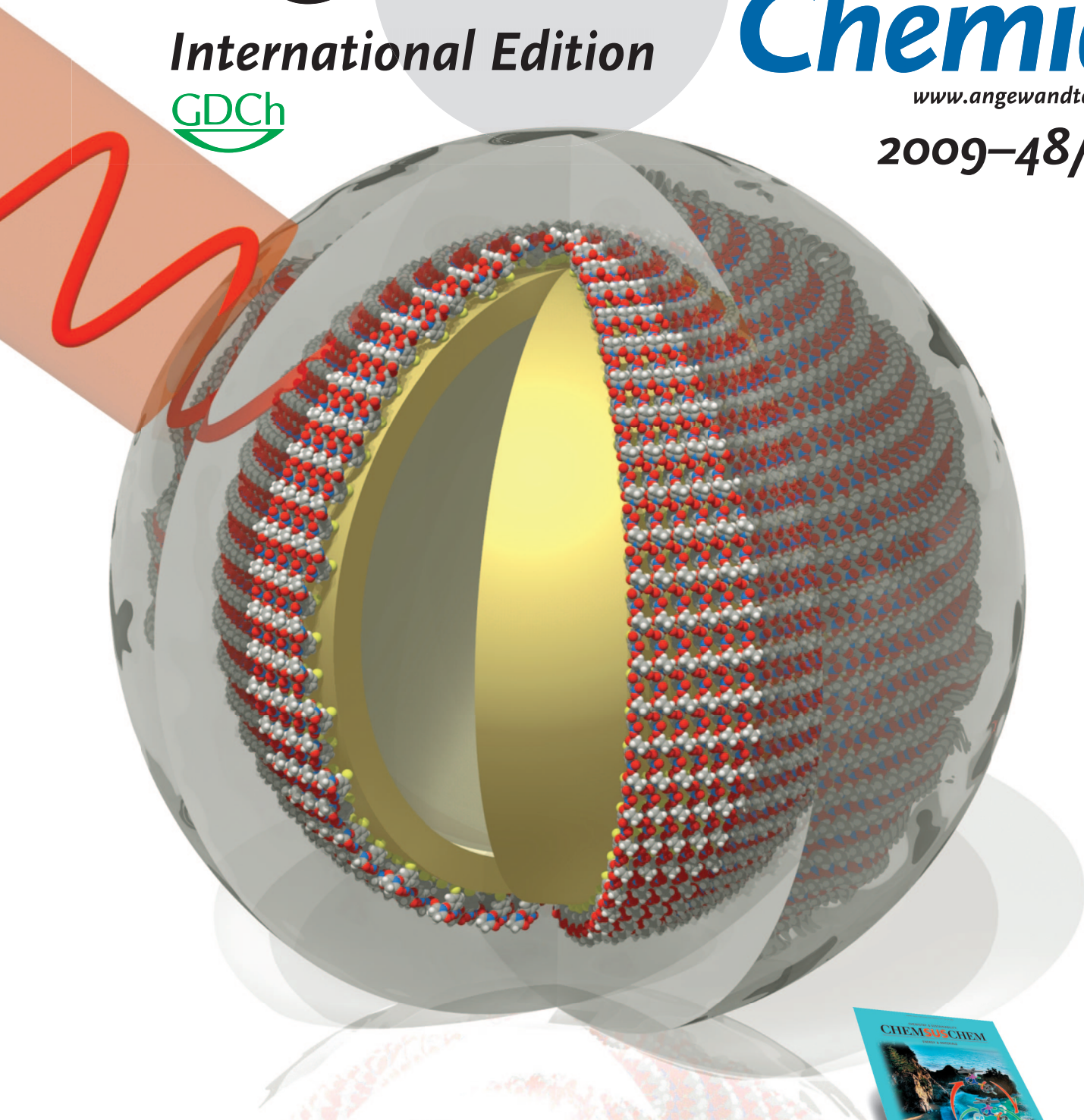
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Glycosidic Bonds

X. Zhu and R. R. Schmidt

Highlights: Heterogeneous Catalysis • Borylene Complexes • Asymmetric Hydroboration

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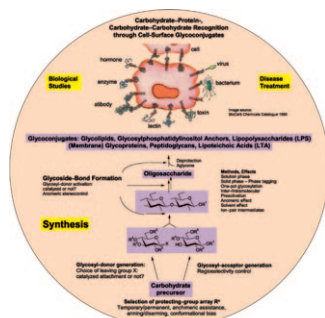
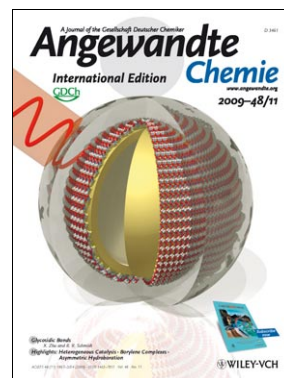
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Cover Picture

Bernd Küstner, Magdalena Gellner, Max Schütz, Friedrich Schöppler, Alexander Marx, Philipp Ströbel, Patrick Adam, Carsten Schmuck, and Sebastian Schlücker*

Silica-encapsulated SAMs (self-assembled monolayers) on tunable Au/Ag nanoshells are described by S. Schlücker et al. in their Communication on page 1950 ff. These systems show great potential as labels for surface-enhanced Raman scattering (SERS) in bioanalytical and biomedical applications with red laser excitation, for example, in assays and microscopy. This method combines the spectroscopic advantages of SAMs with the stability of glass shells.

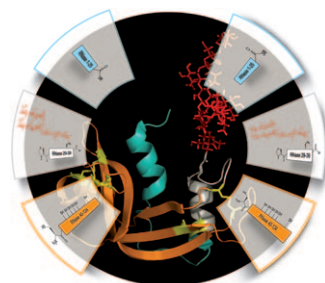


Glycoside Synthesis

The importance of oligosaccharides and glycoconjugates in biological processes has prompted the development of new methods for glycoside synthesis. X. Zhu and R. R. Schmidt discuss approaches to the formation of glycosidic bonds in their Review on page 1900 ff.

Glycosylation

In their Communications on pages 1936 ff. and 1941 ff. C. Unverzagt et al. describe the efficient formation of Cys fragments having seven cysteines, protected against oxidation, and their native chemical ligation to glycopeptides.



1	1	0	2	0	1	3	2	1	1
2	1	2	1	1	2	1	2	3	0
1	2	3	1	2	1	0	4	1	1
2	2	1	1	2	1	0	0	2	1
1	1	3	2	4	2	1	1	0	1
1	0	2	3	1	2	0	1	0	3
1	0	1	0	2	3	1	2	2	1
3	3	1	4	0	1	1	2	0	0
1	2	1	1	2	1	0	2	1	1
2	1	2	1	1	0	4	3	0	2

Single-Cell Analysis

T. Matsue et al. explain in their Communication on page 2044 ff., how an addressable electrochemical device can be used to monitor the protein expression in genetically altered cells.